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## ABSTRACT

A theoretical model for collaborative inquiry as a research methodology in adult education has been proposed. The model, which likens collaborative inquiry to the process of organic gardening, depicts a sphere in motion where the cycles of collaborative inquiry revolve in continuous motion. In the center of the sphere is a collaborative self that is the voice of collaborative partnership. Collaborative knowledge flows through the sphere as it is created in every phase of the inquiry. Caretaking appears around the perimeter inasmuch as it occurs throughout each part of the cycle. Collaborative inquiry is shown to be cyclical and relational in nature. The specific components of the model are as follows: (1) planting seeds (demonstrating sense commitment of and passion for the research; (2) tending to the crops during the growing season (engaging in dialogue, reflection, and artistic expression); and (3) harvesting the crop (gaining "collaborative knowledge"). "Collaborative knowledge" is the term coined to describe the entity that emerges from the relationship between co-researchers. It contains the following components: (1) elements of the researchers' individual selves; (2) knowledge that is shared or held in common; and (3) new knowledge that is created through collaboration. (12 references) (MN)

## Reflective Synergy: A Research Model for Collaborative Inquiry

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A theoretical model for collaborative inquiry as a research methodology in adult education is presented in this paper. The authors discuss the elements of the model along with their lived experience through its development.

Collaborative inquiry is alive and thriving in adult education. The proceedings of previous AERC conferences and similar forums such as the Midwest Research-to-Practice Conference indicate that roughly 40% of presentations are collaborative ventures between two or more presenters. While collaborative inquiry seems to be on the rise, few theories or models are available to assist adult education researchers, including graduate students, who conduct collaborative inquiry.

Our model of collaborative inquiry is rooted in phenomenology, particularly the work of Van Manen (1990). We deepen our level of consciousness through seeing, intuiting, and reflecting upon our everyday lived experience. It is further informed by heuristic research (Moustakis, 1990) as it encourages discovery and reflection on the part of the researcher as well as the research participants. Participatory research as defined by Reason (1994) is a third theoretical component in that we view "inquiry as a means by which people engage together to explore some significant aspect of their lives to understand it better and to transform their actions so as to meet their purposes more fully" (p.1).

We have determined that collaborative inquiry is more than a process for conducting joint research. It is a research method with distinct features and components. The researchers who are also participants in the research are fully engaged in every aspect of the inquiry process.

### Collaborative Inquiry as Organic Gardening

Collaborative inquiry is a living, breathing, dynamic model for conducting research. We understand the research process to be like organic gardening. As one engages with the process directly one feels what it is like to garden. Gardening and collaborative inquiry are experiential because they happen in direct contact with phenomena. The design of inquiry is emergent and generative and flows out of experiences of the inquirers. In Heron's model of cooperative inquiry, this open boundary design is referred to as Dionysian (1996). While one can plan the general direction of the inquiry, the pre-planning does not clearly specify the boundaries and full process of the inquiry. Two or more co-researchers, who are the gardeners, analyze the conditions, listen to all elements and then may add nutrients, water and plan the use of the garden space; even the size and scope of the garden. As is the case with most organic gardens, the garden itself evolves and expands with each new season. Collaborative inquiry is a generative process that evolves over time and builds on each previous cycle.

Many variables impact organic gardening such as climate, soil conditions and surrounding landscape. Collaborative inquiry is also influenced by certain variables. These variables include the lives of the researchers, the socio-cultural environment and individual ideologies and life histories. The relationship of the inquirers to each other and to the inquiry is fundamental like the relationship of the gardener to the garden. Each collaborative inquiry is unique, as is each organic garden; yet there are essential qualities that differentiate collaborative

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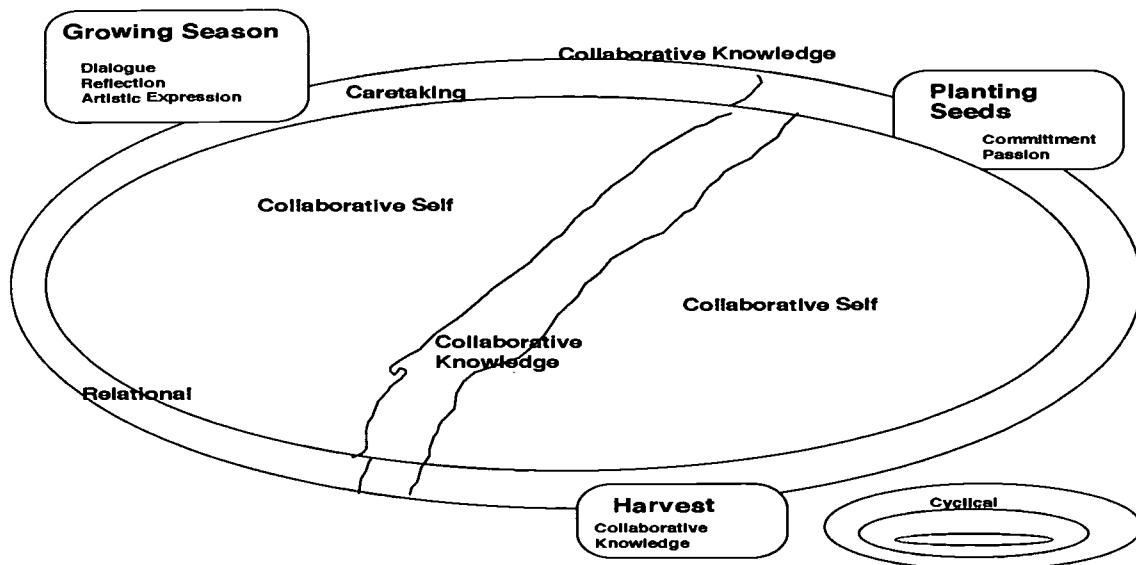
inquiry (organic gardening) from collaboration (gardening) and for that matter, from qualitative research methodology (farming).

### **Collaborative Inquiry Model**

Collaborative inquiry, as a research method, includes a number of essential, inter-connecting dimensions. Our model depicts a sphere in motion where the cycles of collaborative inquiry (likened to the cycles in organic gardening such as planting seeds, growing season, and the harvest) revolve in continuous motion. In the center of the sphere is the collaborative self that is the voice of the collaborative partnership. Collaborative knowledge flows through the sphere as it is created in every phase of the inquiry. Care taking appears around the perimeter since it occurs throughout each part of the cycle. Collaborative inquiry is shown to be to be cyclical and relational in nature. The components of the model are described in detail below.

### **Collaborative Inquiry Model**

Lawrence and Mealman, 2002



### **Planting Seeds**

Beginnings and endings are cyclical in organic gardening. It is a commonly held assumption that the process starts with the planting of a seed. However, seeds come from parent plants and a succession of descendent seeds. They are not manufactured in a factory from raw materials. These seeds contain a genetic code. The substance of a collaborative inquiry lies in the essence of that combined genetic code of the inquirers. Organic gardening requires the gardener to be intentional. To plant the seeds for a collaborative inquiry project two essential ingredients must be present: shared passion and shared commitment. Commitment occurs at four levels: to the self, the project, the group of researchers and the individuals within the group (Mealman and Lawrence, 1998). Collaborative inquiry takes more time and more effort than individual inquiry. At the beginning of a project potential collaborators need to explore whether there is sufficient interest and passion to make the commitment.

While passion and commitment are contained within the seed, they must be continually sustained throughout the inquiry process. Shared passion can often have a volcano effect where excitement in one collaborator ignites passion in another. Often latent passion can emerge through the collaborative interaction. It is important to conduct an energy audit at various points throughout the collaborative process to assess the levels of commitment and passion.

### **The Growing Season: Dialogue, Reflection, and Artistic Forms of Expression**

Knowledge is socially constructed in collaborartive inquiry through the interactions of the researchers/participants who are one and the same. These interactions consist of iterative cycles of dialogue and reflection like the growth seasons of perennial flowers. Flowers grow and flourish in the warm season and then die back. It appears that nothing is happening in these periods of dormancy (reflection). In fact, the flower is gathering strength for the next season when it will emerge in a more prolific way. Reflection occurs at both the individual and collaborative levels.

We have learned to pay attention to peripheral vision and half-baked ideas as two important phenomena in the dialogue process (Mealman and Lawrence 1998). Peripheral vision involves paying attention to ideas that seem on the periphery or appear not directly related to the topic of inquiry. We have found that deep insights can come from these seemingly irrelevant concepts if we keep them in our consciousness. Half-baked ideas are those tentative, not fully formed thoughts that are often dismissed. In a collaborative relationship where trust is high, researchers can bring forth these ideas or tender shoots and together through dialogue, bring them to fruition. Many of the major themes of our research began as half-baked ideas.

While dialogue assumes a conversation using linguistic means, collaborative inquiry also includes non-rational forms of communication including stories and metaphors (Drake, Elliot and Castle, 1993; Lawrence and Mealman, 1999; Charaniya and West Walsh, 2001). We have also advanced our dialogue through sharing photographs and musical selections, drawing pictures (Caron and Hyland, 1999) and even recounting dreams. We have discovered that these artistic forms of expression are not merely adjuncts to the inquiry process; they are essential components.

The following is a typical sequence of how these cycles work in tandem to grow beautiful flowers or create collaborative knowledge:

**Dialogue:** Co-researchers engage in a discussion to explore more deeply the ideas that were generated in the planting seeds phase and to determine a direction for the inquiry topic.

**Reflection:** Researchers write individual think pieces related to the topic. The think pieces usually include metaphors and other artistic forms of expression to access and to articulate ideas, feelings or knowledge that words cannot represent.

**Reflection:** Researchers reflect on and write responses to one another's think pieces which extend the ideas. Questions, notes and comments are identified for subsequent conversation.

**Dialogue:** Researchers engage in dialogue about the writings and identify salient themes that emerge. Clarification and expansion of ideas expressed non-verbally and non-rationally also occur as part of this dialogue process.

**Reflection:** Researchers individually reflect on and write about the themes.

**Dialogue:** Researchers engage in dialogue around each theme where emergent ideas and insights are more fully explored, critiqued and extended.

**Reflection:** Researchers individually analyze the data, adding further insights.

**Dialogue:** Researchers collectively analyze the data and weave the themes together.

These cycles of reflection and dialogue are not as distinct as they appear. Reflection and dialogue occur simultaneously throughout the inquiry process. As researcher/participants engage in dialogue they are actually engaging in group reflection.

### **The Harvest**

The collaborative inquiry process leads to new knowledge that is socially constructed both linguistically and artistically by the researcher/participants through the cycles of reflection and dialogue. Data analysis occurs simultaneously with data collection in each cycle. The knowledge is embodied in the collaborative self that emerges from the researcher relationship (see below). While this knowledge is "harvested" to be shared with others, some of the seeds fall from the mature plant and return to the earth to contribute to next year's growing season or further inquiry. During this phase of the inquiry, the researchers determine what aspects of the knowledge to share in public forums. Articles, chapters or books may be composed that represent the collaborative knowledge. It is at this time that the difficult decisions are made to include some knowledge and not others. While this filtering process is a dimension of all qualitative research it is more complex in collaborative inquiry because two or more people are engaged in a negotiated decision-making process. There is also a richness experienced in creating knowledge resulting from the synergistic nature of collaborative inquiry.

Just as the perennial flowers become more prolific with each new season, knowledge is deepened through each cycle. The knowledge is shared like it was created, using linguistic, metaphoric and artistic forms of expression.

### **Collaborative Self**

Collaborative self is the term that we have coined to describe an entity that emerges out of the relationship between the co-researchers (Meالman and Lawrence, 1998; Lawrence and Meالman, 1999). This phenomenon is central to our model of collaborative inquiry. The collaborative self contains 1) elements of the individual selves, 2) knowledge which is shared or held in common (inter-subjective) and 3) new knowledge that is created through collaboration. Picture a beautiful shade tree in a hardwood forest. The leaves and branches form a canopy that provides shelter from the heat and harsh winds to the creatures below. Upon closer examination one discovers that the tree is actually two trees that have grown up along side of one another. From the top it is impossible to determine which leaves and branches originated from which tree. Similarly, the collaborative self appears as a unified whole. The individual researchers are transparent.

The collaborative self is both created and discovered. It is interpreted and re-interpreted continuously such as in dance. It grows and is nurtured through the iterations of dialogue and reflection, through attentive listening and through a deepening understanding of self, other and the phenomenon under study. The collaborative self is also present during periods of incubation when it appears that active work is not happening.

The collaborative self is a unified voice that speaks for the group and the individuals within the group. It energizes creativity in ways beyond what may be possible for an individual. This often involves playfulness and a willingness to suspend judgment about what is possible. To allow for a collaborative self to emerge one may need to let go of individual conceptual notions and be open to seeing from another's frame.

The collaborative self includes the researchers as individuals; yet, synergistically; it is more than the sum of the individual selves. It has its own language including words, phrases and

meaning created from exploring metaphors. The collaborative self is a unique, new voice that is created through singing together. It holds the shared knowledge and harmony that can only be achieved through collaboration.

### **Relational Dynamic**

A key component of collaborative inquiry is its relational nature. Since the researchers and participants are one and the same, building and sustaining relationships are critical. We have found that getting to know one another at a deeper level than who we are as co-researchers serves to enhance the collaborative inquiry process. The relational dynamic has also been identified by other collaborative teams (Bray, Lee, Smith and Yorks, 2000; Charaniya and West Walsh, 2001). Sustaining the relationship takes the form of affirming one another's individual contributions and supporting individual growth and development. It also involves consciousness of power dynamics, which can occur. Successful collaboration requires shared power and an absence of internal competition.

The relational nature of collaborative work is a key aspect of feminist pedagogy. Clark and Watson found that, "relationship is a central feature of the collaborative experience for women academics" (1998, p. 72). Based on our experience as a male/female collaborative team, the importance of relationship does not appear to be unique to groups of women but rather inherent in the collaborative inquiry process itself.

### **Care Taking**

Care taking occurs throughout the inquiry and its nature shifts as the phases of the inquiry progress. Early on, when planting seeds, it is especially important to listen using focused hearing so that each comprehends the passions and current commitments of the other inquirers. Once tuned in, it is easy to see areas where others have passion and energy. When these areas are brought into our awareness, the potential for creative dialogue is increased. As decisions are made about the focus, the co-inquirers nurture certain seeds and let others go.

In the growing phase of the inquiry, attentive listening becomes central in the iterative cycles of reflection and dialogue. In order to explore fully the experiences and knowledge of the co-inquirers, it is essential to listen to one's partner or team members with open ears and full attention so that one can hear all ideas, thoughts and feelings. The goal is to remain open to divergent views by attempting to see from another's frame before interjecting one's own ideas. A willingness to break from known paradigms needs to be present and modeled. This openness means putting oneself into uncomfortable positions and demonstrating a willingness to take risks and support the risk-taking of other inquirers. This means exploring areas of ignorance and previously ignored views by looking through new lenses (Lawrence and Mealman, 1996). Momentarily suspending one's opinions and entering into another's world, with the intent to understand them in this way, allows for all members to contribute to the collaborative process completely. Attentive listening involves being aware of non verbal as well as verbal cues. Listening to one's inner voice can be facilitated by tuning into the energetic cues displayed by others. In the growing phase stories and metaphors are first introduced. It is critical to the process that all members explore in detail one another's stories and expand on the metaphors since latent knowledge may be just at the surface level.

During the harvest phase of the inquiry, certain metaphors or stories will be used to articulate the knowledge to others outside the circle of inquirers. The collaborative self and its knowledge, as a more mature entity, transcend the various inquirers and can be heard in and

through the individual voices of the inquirers. One way that care taking occurs in this phase is to ensure that while blurring of ownership of individual contributions and stories occurs, each member's contributions are reflected in the outcome.

### Conclusion

Throughout this paper we have used the metaphor of organic gardening with its cycles of planting, growing and harvesting to give emphasis to the organic nature of collaborative inquiry. We have described a model that involves the researchers as participants in the research, engaged in the social construction of knowledge through iterative cycles of dialogue and reflection. The relationship of the researchers to one another including the emergence of a collaborative self serves to strengthen the collaborative inquiry process. Collaborative inquiry is a powerful and dynamic method for conducting research in adult education.

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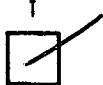
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